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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1459

GUIDING PRINCIPLES FOR PROTECTION AGAINST CORROSION BY HOT DIP GALVANIZING

1st EDITION

April 1970

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 1459, *Guiding principles for protection against corrosion by hot dip galvanizing,* was drawn up by Technical Committee ISO/TC 107, *Metallic and other non-organic coatings,* the Secretariat of which is held by the Ente Nazionale Italiano di Unificazione (UNI).

Work on this question led to the adoption of Draft ISO Recommendation No. 1459 which was circulated to all the ISO Member Bodies for enquiry in May 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Iran	Spain
Belgium	Israel	Sweden
Chile	Italy	Switzerland
Czechoslovakia	Netherlands	Thailand
Finland	New Zealand	Turkey
France	Norway	U.A.R.
Germany	Poland	United Kingdom
Hungary	Portugal	
India	South Africa, Rep. of	

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in April 1970, to accept it as an ISO RECOMMENDATION.

ISO Recommendation | R 1459 | April 1970

GUIDING PRINCIPLES FOR PROTECTION AGAINST CORROSION BY HOT DIP GALVANIZING

1. SCOPE

This ISO Recommendation gives general guidance relating to zinc coatings applied by hot dip galvanizing to steel and cast iron articles to provide protection against corrosion.

2. DEFINITION

Hot dip galvanizing. Is the application of a zinc coating by dipping prepared objects in molten zinc, by which process alloy layers may be formed between the basis metal and the outer zinc layer. Under some circumstances the whole coating may consist of alloy layers and in such cases the appearance may be grey and dull.

3. WEIGHT PER UNIT AREA AND THICKNESS OF THE COATING

3.1 The coating weight per unit area of the surface is given in terms of grammes per square metre of surface. If the coating thickness is required, the equation

$$e = \frac{m_A}{7}$$

gives the approximate relationship between the coating thickness e, in micrometres, and the weight per unit area m_A, in grammes per square metre, assuming the density of the coating to be 7 g/cm^3.

3.2 The coating weight per unit area of the surface is determined according to ISO Recommendation R 1460, *Determination of the weight per unit area of hot dip galvanized coatings on ferrous materials by chemical dissolution of the coating – Gravimetric method.*

4. GENERAL GUIDANCE

4.1 Basis metal

Unalloyed steel and cast iron are particularly suitable for hot dip galvanizing but other ferrous materials may also be hot dip galvanized. The purchaser should provide the hot dip galvanizer with as much information as required about the composition and nature of the steel or cast iron. In cases of doubt the purchaser should consult the galvanizer and, if necessary, submit samples of the materials to be used.